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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,534	05/10/2007	Wilfried Bien	DKT03088 (287)	8970

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BORGWARNER INC. C/O PATENT CENTRAL LLC
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EXAMINER

PASCHALL, MARK H

ART UNIT	PAPER NUMBER
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3742

MAIL DATE	DELIVERY MODE
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02/02/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,534	Applicant(s) BIEN ET AL.	
	Examiner Mark H. Paschall	Art Unit 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art on pages 1-2 in the instant specification, AAPA, in view of Combs 4,138,986 and Mitsui et al 5,521,353. connecting a cast manifold via screws or welding is taught as conventional in the AAPA. The instant claims define that a pulse welding is used to connect the dissimilar metals. Use of laser, TIG, MIG is claimed. The patent to

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Combs teaches connecting a cast manifold ring to a sheet metal connector pipe using welding. See column 8, lines 57-64, teaching that a cast article in a firebox is connected to sheet metal via welding. The use of pulse welding is not taught. In this respect the patent to Mitsui et al clearly teaches that welding of sheet metal with pulse welding is conventional. See paragraph 0026. Mitsui et al also mention in paragraph 31 that cast iron can also be welded. In view of this teaching it would have been obvious to connect the cast part in the prior art disclosed with a sheet metal connector using pulse welding, to produce a superior weld. Note that the Mitsui et al patent teaches that pulse welding can be successfully used to weld thin sheet metal, as claimed. As per claim 22 use of laser welding is conventional, see AAPA. As per claims 23 and 24 MIG and TIG welding is conventional in the applied patents. Use of preheating as per claim 25 is common in the art and hence obvious to one of ordinary skill in the art. As per claim 26 the welded parts are naturally cooled, no mention made of specific cooling scheme in the claim. the article of claims 27-29 obviously occurs with the method steps taught as obvious as per claims 2-26.

Response to Arguments

Applicant's arguments filed 11-08-2010 have been fully considered but they are not persuasive. Applicants arguments advance that welding of cast parts to sheet metal parts is not taught in the prior art of record. Note that claim 20 defines, "welding the port by means of pulse-type welding method to the at least one sheet metal component from which the outer pipe is manufactured". Claim 20 is silent as to the outer pipe or the inner

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pipe being welded to the port. Mention is only made of welding the "port", to one sheet metal component, with the inner pipe comprising part of the port. If the port comprises a cast part with an inner part then the inner pipe could be welded to the outer pipe, clearly taught in the prior art of record.

In addition the patent to Mitsui et al, hereinafter, Mitsui, teaches in column 6, lines 29-41 that, "other materials may be welded using this technique such as cast iron or carbon steel". Clearly, Mitsui teaches welding of thin steel parts to one another and welding of cast iron parts, and one of ordinary skill in the art would be motivated by this teaching to weld steel to cast iron, the steel comprising carbon steel, and line 32 in column 6. Note that the patent to Combs teaches in column 8 lines 57-63 that, "Firebox 15 is mated to heat exchanger 16 by rolled steel ring 28 that is cast into the top of firebox 15. Steel ring 28 is then welded around its periphery to the cylindrical steel sheet shell of the heat exchanger 16." Clearly Combs et al teach welding of cast metal to sheet steel as conventional. In view of the above teachings it is obvious that cast iron can be welded to sheet metal, using pulse type welding, as broadly claimed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark H. Paschall whose telephone number is 571 272-4784. The examiner can normally be reached on 7am - 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark H Paschall
Primary Examiner
Art Unit 3742

Mhp

/Mark H Paschall/

Primary Examiner, Art Unit 3742